Please amend Claims 1, 3, 7, 9-16, and 25 to read as follows

1. A method for treating a bone defect, comprising:

providing a strongly resorbable, synthetic poorly crystalline apatitic (PCA) calcium phosphate, the poorly crystalline apatitic calcium phosphate having a calcium to phosphate (Ca/P) molar ratio in the range of about 1.2 to 1.68 and further having the X-ray diffraction pattern of naturally occurring bone, as shown in Figure 3c, and

implanting the poorly crystalline apatitic calcium phosphate at an implant site $\frac{1}{2}$ requiring bone growth, whereby the implanted poorly crystalline apatitic calcium phosphate is resorbed with a resorption rate characterized in that, when placed in a rat intramuscular site, at least 1 g of the poorly crystalline apatitic calcium phosphate is at least 80% resorbed within one year, and bone is formed at the implant site.

- 3. The method of claim 1, wherein the poorly crystalline apatitic calcium phosphate is implanted in the form selected from the group consisting of paste, putty and preshaped object.
- 7. The method of claim 1, wherein the poorly crystalline apatitic calcium phosphate has an X-ray diffraction pattern comprising broad peaks at 2θ values of 26°, 28.5°, 32°, and 33°.
- 9. The method of claim 1, wherein the poorly crystalline apatitic calcium phosphate is characterized in that, when placed in a rat intramuscular site, at least 1 g of the poorly crystalline apatitic calcium phosphate is at least 80% resorbed within one month.
 - 10. The method of claim 1, wherein the implant site comprises a tooth socket.
 - 11. The method of claim 1, wherein the implant site comprises a non-union bone.



space.

- 12. The method of claim 1, wherein the implant site comprises a bone prosthesis.
- 13. The method of claim 1, wherein the implant site comprises an osteoporotic bone.
- 14. The method of claim 1, wherein the implant site comprises an intervertebral
- 15. The method of claim 1, wherein the implant site comprises an alveolar ridge.
- 16. The method of claim 1, wherein the implant site comprises a bone fracture.
- 25. A method for embedding a prosthetic device, comprising: introducing a prosthesis at an implant site;

applying a paste to a surface of the prosthesis, the paste comprising an amorphous calcium phosphate, an acidic second calcium phosphate, and a physiologically acceptable fluid in an amount sufficient to provide a paste of formable or injectable consistency, whereby the paste is converted at the implant site to a hardened calcium phosphate product in an endothermic process; and

allowing the hardened calcium phosphate to be resorbed and replaced thereby with bone.

Pursuant to 37 C.F.R. § 1.121(c), this amendment is accompanied by (1) a version of Claims 1, 3, 7, 9-16, and 25 that has been marked-up to show all changes relative to the previous version and (2) a clean copy of the claims pending after the amendment.